

C L A I M S

- 5 1. Method of obtaining 2-mercaptobenzothiazole from a melt of the raw product prepared by the reaction of aniline, carbon disulphide and sulphur by pressure synthesis in a reactor, where the melt contains 2-mercaptobenzothiazole, unreacted raw materials, intermediate products and pitches, characterized in that after reaching a stationary state of
10 the reaction medium it includes the following steps:
- a) crystallization of the 2-mercaptobenzothiazole raw product from an aniline solution,
 - b) dividing the liquid phase (F_K) from crystallization from step a) in three parts,
 - 15 c) removing one part of the liquid phase (F_{K1}) from crystallization from step a) out of the process,
 - d) returning the second part of the liquid phase (F_{K2}) from crystallization from step a) into the reactor for preparation of the raw product and supplementing it with sulphur and carbon disulphide with respect to aniline,
 - 20 e) final purification of the crystallized 2-mercaptobenzothiazole from step a) in the aniline liquid phase and separation of the pure 2-mercaptobenzothiazole,
 - f) using the third part of the liquid phase (F_{K3}) from crystallization from step a), supplemented with the liquid phase (F_R) from final purification from step e) and possibly with aniline for crystallization of a further batch of the 2-
25 mercaptobenzothiazole raw product,
 - g) using the liquid phase (F_R) from final purification from step f), together with a part of the liquid phase (F_{K3}) from step e), possibly with aniline, for crystallization of the 2-mercaptobenzothiazole raw product,
 - h) repeating steps a) to g).
- 30 2. Method according to claim 1, characterized in that in the step c) 5 to 20 % of the liquid phase from crystallization are removed.

- 13 -

3. Method according to claim 1, characterized in that the crystallization of the 2-mercaptobenzothiazole raw product is performed from the aniline liquid phase from the preceding crystallization and/or from the aniline liquid phase from final purification and/or from pure aniline.

5

4. Method according to claim 1, characterized in that the aniline liquid phase in step f) for final purification of 2-mercaptobenzothiazole is pure aniline or regenerated aniline or aniline liquid phase from the preceding final purification or a solution of 2-mercaptobenzothiazole in aniline or any combination thereof.

10

5. Method according to claim 4, characterized in that the aniline liquid phase in step f) for final purification of 2-mercaptobenzothiazole is a saturated solution of 2-mercaptobenzothiazole in aniline.

15

6. Method according to claim 1, characterized in that 2-mercaptobenzothiazole obtained in step a) is finally purified by wash separation.

7. Method according to claim 1, characterized in that 2-mercaptobenzothiazole obtained in step a) is finally purified by washing.

20

8. Method according to claim 7, characterized in that 2-mercaptobenzothiazole obtained in step a) is finally purified by washing on a filter.

25

9. Method according to claim 7, characterized in that 2-mercaptobenzothiazole obtained in step a) is finally purified by washing in a centrifuge.

30